



Museums for America

Sample Application MA-30-15-0282-15
Project Category: Collections Stewardship
Funding Level: \$25,001-\$150,000

The Henry Ford (Edison Institute)

Amount awarded by IMLS:	\$150,000
Amount of cost share:	\$386,011

Attached are the following components excerpted from the original application.

- Abstract
- Narrative
- Schedule of Completion

Please note that the instructions for preparing narratives for FY2016 applications differ from those that guided the preparation of FY2014 and FY2015 applications. Most obviously, the names of the three narrative sections and the order in which they appear have changed. Be sure to use the narrative instructions in the FY2016 Notice of Funding Opportunity for the grant program and project category to which you are applying.

Abstract

The Henry Ford (THF) requests \$150,000 from IMLS for a two-year project to clean, re-house and create fully digital catalog records for over 900 electrical-related artifacts; about 15% of THF's considerable holdings in that category.

This project represents an excellent opportunity to address several key institutional priorities in a holistic manner that supports the development of new cutting edge visitor experiences while addressing some long-standing problems in a large collections storage area (CSB). This project will provide foundational cataloging and object conservation for the electrical component of the *Digital Life* exhibition, a major upcoming permanent exhibition at the Henry Ford Museum that will explore innovation-related themes and topics tied to industrialization, mass production and the information revolution. These collections are currently stored in the badly overcrowded and difficult to maintain CSB. Collections density must be reduced in CSB to improve conditions and facilitate regular collections management work. This project follows a similar methodology to an IMLS-funded project to address communications collections, located in the same building.

This two-year project will identify, catalog, treat, re-house, and relocate 900 artifacts related to electrical generation, transmission, and distribution currently located in CSB. Improved cataloging and digital images for these electrical holdings will make artifact information and images available to THF staff, facilitate the development of key interpretive ideas and themes, and feed multiple, publicly available digital collections interfaces. The conservation cleaning and re-housing of these artifacts will improve their condition, and relocating them to new storage areas will reduce overcrowding in CSB. Along with beginning to address these long-standing storage condition problems, the project will provide critical information supporting project planning for further work in that building with other *Digital Life*-related collections. Finally, the work will initiate a long-term strategic goal of consolidating three large-object collections storage areas into a single, on-site facility.

A successful project will generate high-quality, digitized, publicly available catalog records for these 900 electrical artifacts in support of exhibition planning and historical research for the *Digital Life* exhibition. By cleaning and re-housing these artifacts, their physical condition and preservation will be enhanced. Progress toward these outcomes will be measured by search, task management, and reporting tools in THF's collection information system KE Software's Electronic Museum (EMu). Successful relocation of these collections to new storage will generate an estimated 8000 cubic feet of free shelf and rack space to reduce overcrowding in CSB, facilitating further work with *Digital Life* as well as informing planning for the future consolidation of three large-artifact storage areas into a single, on-site facility.

Public benefit will be directly realized by improving access to these historically significant collections for the general population, and by preserving this important cultural heritage. Indirect benefits include supporting the new programs and educational offerings that will come from the *Digital Life* exhibit, and improving the overall collections stewardship capacity of The Henry Ford.

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Project Justification. The Henry Ford (THF) requests \$150,000 from the IMLS Museums for America - Collections Stewardship program for a two-year project to conserve, rehouse, and create fully digital catalog records for approximately 900 items from THF's considerable holdings of electrical production, distribution, and transmission-related artifacts (about 15% of THF's total electrical collections). This project represents an excellent opportunity to address several key institutional priorities in a holistic manner that supports the development of new cutting-edge visitor experiences while addressing some long-standing problems in a large collections storage area. Electrical production artifacts represent a key component of *Digital Life* (working title), a major upcoming permanent exhibition at the Henry Ford Museum. Many of the artifacts related to this exhibition are currently located on campus in a large storage building (CSB) that is badly overcrowded which undermines the preservation of and access to the artifacts stored there. In addition, collections in CSB, in the aggregate, are the most incompletely cataloged and least understood of all of THF's collections. This project follows a similar, highly-successful, IMLS-funded project addressing communications-related collections located in CSB from 2013 through 2015.

This project will identify electrical collections, most of which have been housed in CSB for many years, and remove them to a processing area for cataloging, treatment, and digitization, and then rehouse and move them to new storage. This will result in new or updated, universally available catalog records, supporting the exhibition planning process while contributing to the general knowledge of these collections. Preservation will be improved by the treatment, rehousing, and relocating of these items to less-crowded storage. The reduced density of collections in CSB will make subsequent work with other *Digital Life*-related collections much easier, and will aid exhibition planning with information benchmarks based on real costs and work experience. Similarly, this collections management activity in CSB will inform planning for the future consolidation of two off-site large-artifact storage areas into a new, larger on-site facility, a project expected to begin in 2015.

THF's mission focuses on objects, stories, and lives relating to American traditions of innovation, resourcefulness, and ingenuity. Its collections are particularly strong in their documentation of three key areas of technological and social change, popularly known as the industrialization, mass production, and information revolutions. While these topics are often understood in the popular mind as distinct historical threads, they are deeply interrelated. The goal of the exhibition is to foster 21st century skills, including STEM, by exploring innovation within these pivotal movements in American history, and presenting them through interconnected physical and virtual experiences showcasing artifacts, stories, and people (Supportingdoc1: *RFP-Digital Life Exhibition* - excerpts). The exhibition's digital content, which is expected to be 75% of the total, will extend beyond the physical exhibition, connecting to related presentations in Greenfield Village and to artifacts in storage. This project will provide foundational cataloging and conservation for the electrical artifacts component of the *Digital Life* exhibition. It will expand our understanding of the specific strengths and weaknesses of this collection at the item level, which will allow us to develop preliminary artifact lists for the exhibition and identify areas for new acquisitions.

For this project, THF's electrical collections will include artifacts related to the production, transmission, and distribution of electricity. The core of THF's electrical collections is four seminal collections acquired by Henry Ford in the 1920s and 1930s from Thomas Edison, Westinghouse, General Electric, and the Edison Pioneers, with artifacts tied to Thomas Edison, Nikola Tesla, Elihu Thompson, Frank Sprague, and others. The collections were selected by individuals with first-hand knowledge of the early years of electrical development in the United States and represent electrical landmarks as well as the multitudes of incremental technological gains and innovations that have made electricity the central force in our daily lives today. Artifacts in the project represent the building blocks of our electrical infrastructure, including generators/motors, meters, switches, control devices, transformers, and other items, most dating from the 1880s to 1930s. Only about 60% of the electrical collections across THF are cataloged, and this percentage is much lower in CSB. Based on existing cataloging and visual inventories, about 1100 relevant items are thought to be in CSB (see Supportingdoc2: List

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of Collections). Based on our experience with the communication project, staff should be able to fully process at least 900 of these items. The project will not include incandescent lamps, a collection large enough to warrant a separate project; batteries and cells, which will require dedicated research to address hazardous material issues; electrical appliances; or lamp sockets. Extremely large artifacts, such as multi-ton dynamos, could create logistical problems that would disrupt project workflow, so will be excluded as well.

A critical element in the discovery, exploration, and presentation of *Digital Life* ideas, for the purposes of historical research, exhibition development, and public presentation, is a well-cataloged collections database, capable of sharing data across many digital platforms. THF uses KE Software's Electronic Museum (EMu) system, which manages all THF collections information and makes it available online. Since 2011, THF's strategic digitization initiative, CAN-DO (Collections Access Network for Digital Objects), has produced over 34,000 digitized catalog records incorporating over 66,000 images, aligned with the educational, exhibition, and programming goals of the institution. Improved cataloging and digital images for these electrical holdings will make object information and images available to THF staff and will facilitate the development of key interpretive ideas and themes. By harvesting this information from the EMu database to a SQL database combined with APIs (Application Programming Interfaces) that feed the online, mobile, and on-site kiosk versions of our digital collections, the information, ideas, and stories of innovation and problem solving will be available to teach and inspire people around the nation and world.

This project will also address important short and long term collections management needs. CSB has been one of THF's more intractable collections management problems over the last several decades (Supportingdoc3: Conservation Assessment – excerpts). Built in 1972, this 22,500 ft² building is the major storage area for manufacturing, power, and communications collections, among others. The crowded conditions in CSB complicate even the simplest of jobs, as many things need to be moved to gain access to most collections. It contains many large artifacts, several weighing over 20 tons or exceeding 20 ft. in length. Access problems are compounded by the presence of 60 heavy 8 ft. x 4 ft. pallet racks on wheels that occupy the aisles between the fixed racking and must be relocated before any substantial work can be done, a process made even more difficult by occasional fixed items in the aisles (Supportingdoc4: CSB Storage Photos). Until recently, these limitations have prevented any meaningful undertaking of basic collections management activities, such as cleaning and inventory (the Communications Project was the first systematic effort to address CSB's problems). Consequently, there is a substantial layer of harsh and hazardous industrial soil and debris on all materials that have been in CSB for an extended period of time, and there are many uncataloged items in the space.

In addition, an outbreak of white, fluffy molds of the genera *Aspergillus* and *Penicillium* was discovered in CSB in 2006. A report by a mycologist concluded that the mold levels are low enough not to represent a threat to health for people with healthy respiratory and immune systems. The mold grows primarily on accumulated dust, and has caused damage to wood, rubber, plastic, and leather elements of artifacts (Supportingdoc5: CSB Mold Photos). A dehumidification system, installed in 2007, keeps RH at levels (25%–50%) below those that foster mold growth, preventing new occurrences. Since then, the work done on the communications collections represents the only large-scale remediation effort to date.

This project will continue the progress made by the Communications Project in addressing the badly overcrowded conditions in CSB. The electrical collections are concentrated in six locations within CSB, occupying about 8000 ft³. Addressing all of these collections in a single project maximizes the efficiency of the effort, and creates critical space for subsequent work with other collections. Preliminary estimates indicate that this project will free up about 1000 ft² of space in CSB. Along with improving the condition of these 900+ items, this project will help us to continue to further refine effective and efficient procedures for mold remediation and cleaning as we work with other *Digital Life* collections in CSB, and move toward the further consolidation of large-artifact storage.

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THF has made major progress in improving collections environments in the Museum, Greenfield Village, and collections storage over the last three decades. A major remaining objective, and part of THF's strategic plan, is to find a long-term solution for large-artifact storage by consolidating artifacts currently stored in CSB and in two off-site leased facilities (~120,000 ft² total) into a single on-site facility. A preliminary agreement (Supportingdoc6: Letter of Intent) for this 200,000 ft² facility (POEE, a former engineering lab) is now in place with Ford Motor Company, and THF is in the planning stages of developing a use and renovation plan. A core institutional strategy calls for moving smaller items, including the collections in this project, out of CSB so that the larger artifacts can be more readily managed. The final step in this project, following the cataloging and treatment of these collections, is to relocate project artifacts not expected to be part of the physical *Digital Life* exhibit. These artifacts will be palletized, supported, and protected so they can be temporarily relocated to appropriate storage spaces, ready to be moved safely and easily at a later date to POEE. Imaging and cataloging created for these collections during this project will provide virtual access while physical access is limited.

These outcomes are closely aligned with THF's strategic plan "Vision 2020," which states: "The Henry Ford will lead collaborative educational initiatives to strengthen 21st century skills—creative problem solving, cross disciplinary thinking, self-direction and civic and entrepreneurial literacy—through formal and informal learning opportunities on site, off site and virtual..." THF will achieve this by "offering online tools highlighting our most significant collections and educational products." Objectives for 2014 and 2015 specifically call out planning efforts for *Digital Life* and POEE, and continuing to increase digitized collections information through CAN-DO (see strategicplan.pdf)

Project Work Plan. Over the last several years, through work on CAN-DO and the Communications Project, THF has developed and refined a stable and productive delivery system to create digitized content. We will continue to leverage this system and these workflows for this project, involving several main task streams: collections management, conservation, photography, and cataloging (Supportingdoc7: Collections Digitization Workflow Diagram). Due to the density of collections in CSB, ready access to collections can only be maintained in one area at a time. Electrical collections are concentrated in six locations in CSB; work will start in the area with the largest concentration of collections and then progress to the other locations, following the same basic workflow (Supportingdoc8: Plan of CSB and Project Work Areas).

The project will be able to move to full speed quickly. The Communications Project has given THF and the current project staff (who are expected to roll over into this project) two years of experience using the same methodology, equipment, and programs. Project staff are trained in EMu and are familiar with personal safety standards and conservation best practices for identifying and remediating mold. They have developed considerable experience in addressing treatment and safety issues related to modern materials, including asbestos, mercury and PCBs. Handling and abatement of hazardous materials that cannot be safely addressed by Conservation staff is contracted out to licensed professionals. Key workspace facilities are already in place, notably a clean room, an enclosed 16 ft. x 45 ft. area for mold removal and preliminary cleaning, located adjacent to the CSB entry bay. It is positively pressurized with a blower and HEPA filter (Supportingdoc9: Photos of CSB Clean Room) and has an additional blower & HEPA filter that serves as a scrubber within the space, and which also has been modified to serve as a downdraft table (<http://blog.thehenryford.org/2014/04/a-peak-behind-the-scenes-at-the-henry-ford/>). Work will progress systematically from location to location within CSB. Each collections space will be prepared by removing unrelated rolling carts, palletized collections, and other materials in the aisles to allow for unrestricted access to the storage racks and to create access to the clean room from the work location. All project collections can be safely reached using a narrow-aisle forklift, a narrow scissor lift, and pallet jacks. The items in this collection group are quite heavy and difficult to handle, so the project will develop handling equipment (pallets, lift carts, Teflon trays, etc.) to facilitate movement with minimal handling of objects.

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Each phase of work will begin with a strategy meeting with the Curator of Industry & Design, project staff, Registrar, Conservators, Collections Manager, Conservation Specialists, and Collections Specialists. This meeting will review preliminary artifact lists based on collections records and physical inventory in storage, and will address general approaches to the work, as well as specific cataloging, handling, condition, and materials issues likely to be encountered with the artifacts. Weekly meetings will coordinate activity and address issues that have arisen from the work. We will continue critical tracking processes begun in the Communications Project, using EMu's events module and task tracking functionality for batching of work and daily coordination of all aspects of the workflow. This capability has been critical in the Communications Project to ensure smooth project coordination across five different units and three buildings.

Collections and Conservation staff will remove artifacts from racks and shelves and bring them to the preliminary treatment area, where they will be cleaned of mold using a HEPA vacuum and appropriate cleaning solutions prior to movement into other collections areas. This work will be overseen by the Senior Object Conservator in consultation with the Curator and carried out by the Project Conservator and Conservation Specialist. The preliminary treatment is a mandatory step in the overall workflow, so this work process will be regularly evaluated to ensure the resources dedicated are sufficient to prevent backups. Once preliminary treatment is complete, artifacts will be moved directly to the Conservation Labs for additional treatment or staged in the Registrar's Auxiliary Processing (RAP) room in the Museum. Artifacts will be cataloged while awaiting additional conservation treatment and photography. All collections movement and treatments will be recorded in EMu.

A critical thread in this project is the retrieval and re-association of fragile object source tags, which is often all that connects these artifacts with their provenance. By processing the entire contents of each shelf, we are maximizing the chances that these tags can be recovered and critical provenance information re-associated with the appropriate artifacts. The documentation of items in this project will involve original (first-time) cataloging for any uncataloged items, and reformatting and enhancement of existing catalog records. The Registrars staff and the Curator will assemble appropriate documentation resources for the Assistant Curator and Collections Specialists, and review any potential cataloging issues. The Curator will work with other *Digital Life* curators and assist Collections Specialists in identifying artifacts and developing new subject terms, keywords, and important dates. In order to ensure consistency in the records and follow best practices, THF's standards for the data structure, data values, and data content in item-level cataloging are based on Cataloging Cultural Objects (CCO) standards, in conjunction with local requirements. Terms from globally-recognized controlled vocabularies such as the Library of Congress Subject Headings and their authorities and the Getty vocabularies The Art & Architecture Thesaurus® and The Getty Thesaurus of Geographic Names® are also used (Supportingdoc10: THF Metadata Elements Overview).

Conservators, in consultation with the Curators and Photographer, will recommend additional treatment required to digitize artifacts and prepare them for long-term storage. In general, treatments will focus on cleaning and stabilization rather than full scale interventions that compensate losses and fabricate missing elements. The objects in these collections are composites of a variety of materials, including natural and synthetic rubbers, phenolic resins, metals, glass, and ceramics. In addition to the preliminary treatment to remove mold and surface soil, the stabilization treatments may include corrosion removal from metal parts, the removal of aged oils and other surface coatings, and the consolidation of flaking paints and delaminating platings. Special note will be taken by conservators to identify hard rubber and other polymer components to assist with subsequent decisions on rehousing and storage needs. These collections include a variety of hazardous materials, including mercury, lead, asbestos, PCBs, and cadmium, which project staff have encountered and have established procedures for in the Communications Project. Treatment of these collections

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will occur in THF Conservation Labs which are equipped with the appropriate ventilation, handling, and safety equipment.

The THF photography studio is equipped to current industry standards, including two Canon 5d Mark III cameras tethered directly to an iMac computer for instant image access, editing, and upload to EMu. The Photographer works with Conservators and the Curators to determine required views and details (multiple shots, inscriptions, labels, makers' marks, etc.) and proper depth of field, lighting, and composition through test exposures for each artifact. Images are created in the RAW format and are retouched using Adobe Photoshop CS6.1 to remove any lint or dust in the background; no alterations are made to the artifact image itself. Following editing, images are converted to TIFF format master images and JPEG format primary derivative access images. The JPEG derivative images are imported into EMu with associated metadata records following the Dublin Core schema.

After photography, artifacts will be returned to the RAP room for rehousing before being taken to storage. Smaller artifacts will be stored in polyethylene boxes, with appropriate packing materials including corrosion intercept film where necessary. The boxes are placed in new food-grade pallet boxes which are lined with polyethylene sheeting and include conditioned silica gel bags in the enclosed space. All boxes will be labeled with images and descriptions to facilitate future condition checks. Larger items will, at a minimum, be palletized and covered with Tyvek enclosures for cleanliness (Supportingdoc11: Photos of Palletized Collections). Whenever practical, food-warehouse grade plastic pallets and pallet boxes will be used to prevent future mold growth. When wood pallets are necessary, for larger artifacts or special handling/housing requirements, the wood will be sealed with anti-microbial paint.

Two leased storage spaces will house the artifacts removed from CSB. One of these sites (Gulley) provides a substantially better collections environment than CSB, being heated/cooled and easy to maintain. The other (Brandt) is a large, heated warehouse space. Although climate control is limited in this building, reasonable conditions are maintained, due to a tempering effect of the large thermal mass of its masonry construction. Data-logger records show average temperature of 61 degrees (annual min 49, max 83) and average relative humidity of 49% (annual min 33%, max 65%) with minimal daily fluctuations. Conservators and the Collections Manager will determine the appropriate storage location for artifacts based on material and structural needs. In general, smaller items and objects that contain unstable plastics, rubber, paper, cardboard, leather, and lacquer coating will have priority for climate-controlled Gulley. More stable objects with fewer fragile elements will be stored at Brandt.

Since existing equipment and facilities are in place for all activities in this project, the project costs cover staff and supplies. Key staff members overseeing the project are Marc Greuther, Director of Historical Resources, Chief Curator, and Curator of Industry & Design (Project Director) and Mary Fahey, Chief Conservator (Project Manager). Marc Greuther will be responsible for maintaining the intellectual vision for the project, providing subject expertise, and project integration with the *Digital Life* team. Day-to-day subject matter issues, such as object identification and selection, will be addressed by Collections Specialist/Assistant Curator Jacob Hildebrandt, who will also have collections management responsibilities. Clara Deck, Senior Object Conservator, specializes in modern materials and industrial collections, and will oversee treatments and rehousing procedures, working closely with Project Conservator Jessica LaFrance and Conservation Specialist Cayla Osgood. Lisa Korzetz, Registrar, will oversee all processing and cataloging, which will be carried out by Collections Specialist Patrice Fisher, and will also work closely with Ellice Engdahl, Digital Collections & Content Manager, to ensure that all materials proceed smoothly through the already established digitization workflow and are made available online. Jim McCabe, Collections Manager, is responsible for all activities relating to the movement, storage, security, and general well-being of collections. He will work closely with Clara Deck and Jacob Hildebrandt on collection rehousing and relocation strategies, and will track project

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evaluation metrics. Rudy Ruzicka (Photographer) and Jillian Ferraiuolo (Digital Imaging Specialist) will do all photography, digital image processing, and upload of images to EMu. IMLS funds will support the full-time Project Conservator and the part-time Conservation Specialist to work on treatments and rehousing, as well as a portion of the full-time Collections Specialist/Assistant Curator to support both cataloging and collections management activities. Existing staff from THF's Conservation, Registrars, and Collections Management units will support the project as necessary.

Resource needs for all project tasks have been calculated based on actual figures from our existing work processes. For conservation treatment and rehousing, we estimate 1 to 10 hours per item, with another hour per item needed for collections handling/tracking (Supportingdoc12: Conservation Time Estimates). Photography will require an average of one hour per item from both the Photographer and the Digital Imaging Specialist. Cataloging items to CCO standards will take approximately one hour per item with an existing record and three hours per uncataloged item (including provenance research). A final quality assurance review of completed records in EMu before making them live to the public will take 5 hours for every 100 objects. Other ongoing tasks that have been factored into our estimates are: coordination and supervision of all project resources; consultation with the Curator and others; continuous evaluation of work processes and output, with course corrections as needed; and communication of project progress and status to internal and external audiences.

The project will have three major phases. The first phase, beginning October 1, is project startup and mobilization. Since this project will commence immediately following the completion of the Communications Project, the only startup and mobilization required will be moving from the final Communications Project work area to the first Electrical Project work area, and the purchasing of the necessary supplies and material to begin the project. Phase Two is work in Area 1, containing smaller objects with the most tenuous provenance identification. It will run from November 2015 to January 2017 and is expected to process 700-800 objects. Phase Three is work on larger artifacts in five other locations in CSB. Curators and project staff will select among these work areas based on artifact significance and work efficiency, which will fill the remaining eight months of the project (Supportingdoc7: Plan of CSB and Project Work Areas).

The most immediate users of the results of this work will be internal to THF: primarily the planning group for the *Digital Life* exhibition and the large-artifact storage (POEE) planning group. There is substantial overlap between this project team and those two planning groups. To keep other internal THF staff as well as external audiences informed of progress on this project, as well as to raise awareness and excitement, THF will utilize its existing blog and social media channels, along with "e-blast" e-mail announcements and print members' publications (for example, <http://blog.thehenryford.org/2014/10/impls-grant-artifacts/>). Project staff have presented findings from the Communication Project at several professional conferences, and expect to continue with the Electrical Project.

Project Results. For mature institutions with very large holdings, collections can be a double-edged sword. They represent a tremendous cultural resource that can support a wide range of programs, but their long-term care and management is very costly, and so these collections can be perceived as a huge, undifferentiated mass of "stuff." It is only when physical and intellectual access to these collections is improved that these perceptions can be shifted. THF has been working steadily for over three decades to improve preservation of and access to its world-class collections, and these efforts have yielded real success. Along with millions of dollars in capital and operational funds spent to improve collections stewardship, THF has stronger interpretive frameworks that inform new physical and virtual visitor experiences. Several new Museum exhibitions, both temporary and permanent, have made use of newly "revealed" collections that had been in storage for decades. We have seen big increases in "behind-the-scenes" tours of collections and other enthusiast programs. Our expanded digital collections presence has led to a substantial increase in outgoing loans, as THF's collections are made digitally accessible around the world. However, CSB, and the important but poorly understood industrial collections it

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holds, remains one of THF's most important remaining "undifferentiated masses of stuff." The successful Communications Project laid the critical groundwork for new understandings of these very significant collections, and this project will continue that important work. We expect that the ripples of understanding that the Communications Project has generated will continue with the Electrical Project and spread throughout the organization and the public at large as the *Digital Life* exhibition moves from planning to reality.

The output of this project will be cataloged, digitized, and publicly available cross-searchable records for 900+ objects from THF's electrical collections. All THF digitized collections data is delivered publicly via THF's existing database/API structure to three main interfaces: the Web, via our current collections Web site (<http://collections.thehenryford.org>); mobile devices, via our mobile collections Web site (<http://mc.thehenryford.org>); and 20 interactive kiosks on the Henry Ford Museum floor. Newly digitized collections content is currently harvested from EMu and made live on all of the above systems every two weeks, which will allow us to make newly digitized materials available to users throughout the lifespan of this project. In addition, all content created through this grant will be fully integrated and cross-searchable in all of the above interfaces with the remainder of our continually expanding digital collections. Improved cataloging and photography of these objects will be available to all THF staff via our collections management system and related search tools, which will greatly facilitate the development of our upcoming *Digital Life* exhibition. Other current and potential users of the material from this project include scholars and researchers, museum staff and visitors, educators and students, and general enthusiasts.

THF is committed to the ethical stewardship of its collections. This stewardship extends to providing reliable long-term preservation to digital assets with the aim of facilitating continued access to digital material and ensuring proper digital records management (Supportingdoc13: THF Digital Preservation Policy). THF is also committed to maintaining and improving our delivery system for digitized collections, based both on its prominence in our strategic plan and on its existing and growing role in our Museum exhibitions. The information technology structures, backend software and databases, and online access components required to maintain our digitization program are supported by THF's operational budget. Our intention is to maintain and expand our digital collections presence on the Web, with this content remaining free and publicly accessible.

This project will substantially improve the condition of these 900+ artifacts by removing the corrosive and destructive effects of accumulated dirt and mold. Proper rehousing will improve their physical safety, reduce crowding, and make them easier to care for and maintain. While the new storage areas for the relocated collections are temporary, they represent substantially improved conditions over CSB. The process of relocating these collections will also bring THF closer to being ready for a move to new storage in POEE.

While it may take many years for these long-range goals to be realized for CSB's collections, this project will generate real, measurable product that will foster those changes. Concrete metrics for number of objects conserved, cataloged, photographed, rehoused, and relocated will be generated from EMu, creating snapshots of the collections "pipeline" (Supportingdoc14: Communications Project Status chart). Category totals will reveal successes, and differentials between categories can reveal issues and provide guidance in adjusting resource allocation/workflow.

Finally, this work will provide important information on work rates and costs for cataloging and treating objects stored in CSB. Based on the overall object numbers and project costs developed for this application, the average per-item cost of cataloging, treating, and digitizing collections in CSB is about \$590. An accounting of staff time and expenses at the project close will provide hard per-item costs, critical for future project planning and for workflow analysis to maximize the effectiveness and efficiency of this work. Given the scale of the subsequent work in CSB, any improvements developed during this project will have many benefits for future work.

Schedule of Completion

The timeline for this project is as follows:

- Oct. 1 2015:
 - Hire and train new project staff (if necessary)
 - Purchase conservation supplies
 - Create access to first work area in CSB; update Clean Room area as necessary
 - Establish appropriate communication channels between project steering resources and project staff (meetings, e-mail updates, etc.)
 - Establish EMu event naming/metadata standards to allow ongoing tracking of all project tasks
 - Determine preliminary order for tackling groupings of content
 - Begin Ongoing Project Tasks (see below)
- Nov 2015 – Jan 2017:
 - CSB Area 1 Ongoing Project Tasks (CSB 100 racks – small objects)
 - 750 objects conserved, photographed, cataloged, and re-housed (80% complete)
 - End-of-phase cleaning of CSB storage area and assessment of newly available space.
 - End-of-phase records evaluation in EMu
 - Interim Grant Reporting (October 2016)
- Feb 2017 – Sept 2017:
 - CSB Area 2-6 Ongoing Project Tasks (larger objects on pallet racking)
 - Select and create access to other work areas
 - 150 objects conserved, photographed, cataloged, and re-housed (100% complete)
 - End-of-phase cleaning of CSB storage area and assessment of newly available space.
 - End-of-phase records evaluation in EMu
 - Final Grant Reporting

Ongoing Project Tasks:

- Conservation: Treatment time will range from 1 to 10 hours per item.
- Collections handling and tracking: average of 1 hour per item
- Photography: 1 hour per item for photographer plus 1 hour per item for Digital Image Specialist (photography, PhotoShop, entry of images and image metadata into EMu)
- Cataloging items to CCO standards: 1 hour per item with existing record, 3 hours for uncataloged items, including provenance research.
- Final quality assurance review of completed records within EMu and flagging to send them to Production: 5 hours per 100 items
- Coordination and supervision of all project resources
- Consultation with curator and others on appropriate metadata, plans for upcoming work, etc.
- Continuous evaluation of work processes and output, with course corrections as needed
- Communication of project progress and status to internal and external audiences via social media channels, THF's blog, institutional publications, etc.